

Title (en)
LEAD ANGLE VALUE SETTING METHOD, MOTOR DRIVING CONTROL CIRCUIT, AND BRUSHLESS MOTOR

Title (de)
VERFAHREN ZUR EINSTELLUNG EINES FÜHRUNGSWINKELS, MOTORANTRIEBSSTEUERSCHALTUNG UND BÜRSTENLOSER MOTOR

Title (fr)
PROCÉDÉ DE RÉGLAGE DE VALEUR D'ANGLE D'ATTAQUE, CIRCUIT DE COMMANDE D'ENTRAÎNEMENT DE MOTEUR ET MOTEUR SANS BALAI

Publication
EP 2629415 B1 20150909 (EN)

Application
EP 12763402 A 20120229

Priority
• JP 2011075009 A 20110330
• JP 2012001371 W 20120229

Abstract (en)
[origin: US2013170951A1] A method for setting a lead-angle value of a motor drive control circuit is disclosed. The motor drive control circuit energizes and drives the windings of a motor with an energizing timing based on a stored lead-angle value. The method includes the steps of: rotating a rotor at a given rpm (step S102), energizing and driving the windings during the rotation at the given rpm with the lead-angle value being switched (step S110); calculating an average value of current amount that energizes and drives the windings (step S114); calculating a total value of consecutive multiple average values for each lead-angle value (step S120); finding a smallest total value among the total values, and setting a lead-angle value corresponding to the smallest total value as a stored lead-angle value (step S122).

IPC 8 full level
H02P 6/06 (2006.01); **H02P 6/16** (2016.01); **H02P 6/08** (2016.01); **H02P 6/28** (2016.01)

CPC (source: EP US)
H02P 6/06 (2013.01 - EP US); **H02P 6/15** (2016.02 - EP US); **H02P 6/28** (2016.02 - EP US); **Y10T 74/1447** (2015.01 - EP US);
Y10T 74/1459 (2015.01 - EP US); **Y10T 74/1482** (2015.01 - EP US)

Cited by
EP3054582A4; EP4166911A1; FR3128294A1; EP3893255A1; WO2021205375A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
US 2013170951 A1 20130704; US 8692492 B2 20140408; CN 103181072 A 20130626; CN 103181072 B 20141105;
EP 2629415 A1 20130821; EP 2629415 A4 20140101; EP 2629415 B1 20150909; JP 5273322 B2 20130828; JP WO2012132231 A1 20140724;
WO 2012132231 A1 20121004

DOCDB simple family (application)
US 201213821916 A 20120229; CN 201280003416 A 20120229; EP 12763402 A 20120229; JP 2012001371 W 20120229;
JP 2012551817 A 20120229